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ABSTRACT

Advocates of meaningful instruction, while relying on the appeal of meaningfulness in a broad sense, often assume a narrow interpretation of meaningfulness in which connections are interpreted as connections to everyday life, and value is interpreted as immediate usefulness. Making instruction meaningful in these narrow interpretations tends to limit the ideas of teachers and students about the value of education and to restrict students' opportunities (and the perceived obligations of teachers) to broaden and question knowledge. Because educators stress useful education, especially for children who are not middle-class, making instruction meaningful actually reinforces educational and social inequalities. (Author/JD)

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Abstract

Advocates of meaningful instruction--while relying on the appeal of meaningfulness in a broad sense--often assume a narrow interpretation of meaningfulness in which (1) connections are interpreted as connections to everyday life and (2) value is interpreted as immediate usefulness. Making instruction meaningful in these narrow interpretations tends to limit the ideas of teachers and students about the value of education and to restrict students' opportunities--and the perceived obligations of teachers--to broaden and question knowledge. Because educators stress useful education, especially for children who are not middle-class, making instruction meaningful actually reinforces educational and social inequalities.

THE TROUBLE WITH MEANINGFULNESS

Robert E. Floden and Margret Buchmann[1]

Telling teachers to make schooling meaningful sounds like good, though vague, advice. How could one advocate meaningless instruction? That would sound like a proposal to spread anomie.

Things are meaningless when they are *arbitrary*: having no import or significance, no integration or connection with one's judgment or understanding. Meaningful instruction, on the other hand, results in learning worthwhile things with understanding. It would be meaningless to learn things that have no value. It would also be meaningless to learn statements without rhyme or reason, nonsense syllables, or lists of categories without a system in which they make sense. Although the concept does not cover all there is to education and learning, we do not deny the value of meaningfulness so construed. In fact, part of the trouble with meaningfulness is that its value appears self-evident.

Widely accepted views of education hold that becoming educated entails learning something worth knowing, and, at the same time, understanding how

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what is learned relates to other knowledge and supporting arguments or evidence. These relationships are determined (in form and in content) by disciplines with standards of justification and criticism. Learning these standards and relationships distinguishes education from the mere internalization of beliefs.

Education in this sense cannot be meaningless. Because what is learned is worthwhile, the content is not arbitrary or valueless. Because understanding is required, instruction can enable students to appreciate reasons for claims and challenges. Students can learn to make connections, see analogies, and, on occasion go beyond what they have learned in school. Under this broad interpretation of meaningfulness, to argue that learning should be meaningful is just to say that schools should educate. (Philosophers of education themselves have made this link between education and meaningfulness. See, for example, Phenix, 1964.)

Cognitive psychologists, both followers of Piaget and proponents of information-processing approaches, stress that, in order to learn, people need to connect what is to be learned with what they already know. Educational psychology texts for teachers (e.g., Smith, 1975) make students' opportunity to give meaning to instruction central to comprehension. Ethnographic approaches newly prominent in education (e.g., Goetz & LeCompte, 1984; Wilson, 1977) similarly assume that without making meaning, students have no valuable opportunities to learn in schools.

In themselves, associative requirements for learning imply nothing for what is to be learned. Nor do they distinguish between making sense in some personal way and appreciating disciplinary reasons for believing or rejecting something. There is, however, a general tendency to apply psychological advice about learning and comprehension by linking school tasks to the

ordinary perceptions of children and their everyday world. Making sense then means linking school tasks to extramural life and activities; such connections are also supposed to motivate students.

The call for meaningful instruction thus resembles pleas, typical in the sixties, for making education relevant. Some of the problems described in this paper have been carefully analyzed in that context (e.g., Scheffler, 1969; Withey, 1975).

So why worry about meaningfulness now? For one thing, the problems associated with relevance persist in the guise of meaningfulness; for another thing, the arguments are no longer confined to philosophical disagreements. Still another reason is that meaningfulness does not suffice as a guide to instructional method and content. Advice based on psychological concepts of meaningfulness concerns *assimilative* education, applying much less to conceptual change. (See Petrie, 1981, for a discussion of conceptual change in education.)

Moreover, advocates of meaningful instruction--while relying on the appeal of meaningfulness in the broad sense--often assume a narrow interpretation of meaningfulness in which (1) connections are interpreted as connections to everyday life and (2) value is interpreted as usefulness that can be appreciated in the here and now. Making instruction meaningful in these narrow interpretations tends to limit the ideas of teachers and students about the value of education and to restrict students' opportunities--and the perceived obligations of teachers--to broaden and question knowledge. Because educators stress useful education especially for children who are not upper or middle-class, making instruction meaningful actually reinforces educational and social inequalities.

We will consider how expert ideas about making one kind of learning efficient are inappropriately taken as advice about learning and education in general, interpreted substantively by commonsense beliefs about what it is best for people to learn, and then unequally applied to students differing by culture and class. The net effect is a bias against change and education,[2] especially where both are needed most.

Relating to What You Already Know

Making school tasks meaningful is often understood as helping students see links to things they are familiar with. The case for meaningfulness draws support from commonsense ideas about desirable learning, philosophical arguments, and psychological research on what makes learning efficient. Each line of argument has merit when "links to the familiar" is considered broadly; narrower interpretations, however, are less defensible.

Starting With the Familiar?

"Starting where the students are" seems common sense. If the teacher overestimates what students already know, both in content and skills, students will have difficulty learning. Where difficulties are forbidding, few students will persist, and learning may become aversive for many. This seems counterproductive. In addition, common sense supports starting where the students are because this honors their characteristics as individuals.

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[2]Throughout this paper, education is taken to imply learning that recognizes students' rationality and enlarges the realm of their understanding. Education in this sense is distinct from mere acquisition of skills or accumulation of beliefs.

Dewey and progressive educators assume that learning is and should always be a gradual movement from everyday to academic understandings.

> The subject matter of the school curriculum should mark a gradual differentiation out of the primitive unconscious unity of social life . . . We violate the child's nature and render difficult the best ethical results by introducing the child too abruptly to a number of special studies, of reading, geography, etc., out of relation to this social life. (Dewey, 1897/1964, p. 432)

Psychological research has not considered such ethical arguments for meaningfulness, although much ethnographic work in education does presuppose them. But many studies support the positive effects of meaningfulness, as familiarity or associative links, on comprehension and memory.

In some studies, familiarity itself has been a synonym for meaningfulness. In studying perception, for example, sequences of letters that occur frequently in English (e.g., *str*) are considered more meaningful than sequences that seldom occur (e.g., *tsr*) (Smith, 1975). Psychological studies of the meaningfulness of words have also used their frequency of occurrence as a criterion. Indices of readability levels often incorporate familiarity in this sense. Psychologists have found that familiar words and phrases can be recognized more quickly and remembered longer.

Psychologists also use "meaningfulness" to signify the number and strength of associations. A simple measure of how meaningful an individual finds a phrase, for example, has been to count the number of things the person associates with it (Johnson, 1975, p. 432). Recent work has assumed more systematic and structured relationships between existing beliefs and meaningfully learned information (Ausubel, 1968; Rumelhart & Ortony, 1977). The idea that something is meaningful when it is part of a network of beliefs or concepts is similar to viewing knowledge as a structured web of meaning (e.g., Quine & Ullian, 1970).

As with familiarity, studies show that seeing some sort of relationship between new information and existing experience, beliefs, or knowledge makes it easier to learn and retain the new information. Many studies have shown that people's ability to understand something read or heard is dependent on meaningfulness in this sense. In fact, relations to existing beliefs have been defined as comprehension: "A listener or reader must be able to relate new information to what he knows already; this is comprehension" (Smith, 1975, p. 221).

People support basing instruction on the familiar or links to the familiar in terms of such psychological work. This argument is flawed by its restricted view of the familiar and its exclusive focus on memory and (immediate) comprehension as learning outcomes. In principle, associative links could be made to anything already known, including academic knowledge. Connections could also be made later or reflexively, rather than at every step in the learning process. But many educators interpret the requirement for making connections with the familiar in a more literal and immediate sense. Beyond that, linking instruction to what is already known is more appropriate for assimilating information into existing frameworks than for inducing conceptual change.

Sticking to the Familiar?

"Being familiar with" means having close or habitual acquaintance with. The root meaning is tied to "family," which suggests intimate knowledge from constant, everyday association. It connotes ordinary, common understandings, rather than conceptions mediated by a special physical or linguistic apparatus.

The most restrictive interpretation of links to the familiar is choosing instructional content that students already know simply by living at home. This interpretation has some attraction. It acknowledges students' personal and local knowledge, their close-to-home experiences, making schooling not something alien and unaccountable but part of a continuous thread, spun, as it were, by life itself.

Accordingly, when deciding what children should read, educators are sometimes urged to look for topics that are already familiar and stick to readings with vocabularies restricted to words children (frequently) encounter outside of school. In social studies, teachers may discuss community events, incidents from family life, and going shopping at the local supermarket. In mathematics, children may practice things they are likely to see their parents do: paying utility bills or balancing a checkbook. Here the familiar *is* the content of instruction, rather than being merely a point of departure into the unknown.

Although sticking to the familiar does occur, it is an extreme version of links to the familiar in instruction. More commonly, meaningfulness is interpreted as starting with the familiar. Still, familiar starting points are typically selected from everyday life, not from academic topics already known, the dreams of children, or extraordinary situations in their lives. Thus while Dewey points out that a new thought "suggested must, indeed, be familiar in *some* context" he advises educators to call to children's minds "the sort of occupations that interest and engage activity in everyday life" (Dewey, 1916, p. 181). Educators are still responding to his call:

> This practice seems widespread. In science teaching, for example, educators have always recognized the need to "start where the child is." Ausubel emphasizes this in the distinction between "meaningful" and "rote" learning. In practice this is usually interpreted in terms of

> relating science teaching to experiences which are familiar to children in their daily lives. (Driver, 1983)

In social studies students may be encouraged to think of disputes between England and the American colonies as a variation on family arguments. In mathematics, students might to taught about probability by analogy to their everyday conception of luck. This narrow interpretation of the familiar tends to be conservative. It predisposes students toward maintaining their preconceptions, in some cases raising barriers to equalizing educational opportunities.

Easing Children Into the Disciplines?

If subject-matter concepts are distinct from everyday concepts, that is, if accommodation rather than assimilation is necessary, there is little value in understanding and remembering the familiar. Education ought to

> transform ordinary perspectives rather than to confirm them. Through his studies the student should find himself in a different world from the commonplace one of practical life. (Phenix, 1964, p. 346)

Psychological studies using memory and comprehension as outcome measures have more to say about enlarging current understandings than about learning something new and different.

It is not even clear that students can better understand things they already know about; what is saturated with experience, for instance, may become less accessible to analysis and normatively correct inference (Nisbett & Ross, 1980). If students make sense of instruction in terms of familiar, everyday concepts, they are in effect not changing their beliefs so much as reducing new information to old beliefs. And the more richly evocative--meaningful--old beliefs and memories are, the more likely it is that school knowledge will be reconstructed by common sense. Indeed, the comfortable feeling students get from having made sense of what they studied--of seeing it

as essentially familiar--may make them less inclined to give up their old beliefs. Thus well-intentioned attempts to ease children into the disciplines may have disappointing educational results.

Current research on science education has demonstrated that instruction allowing students to see events as examples of their incorrect commonsense or idiosyncratic theories of the world is likely to interfere with their learning of unfamiliar, scientifically grounded theories. Students doing school activities on the topic of light, for example, typically continue to see phenomena in terms of their initial idea that light "brightens" objects (rather than being reflected off the objects) unless instruction explicitly contradicts these initial ideas (Eaton, Anderson, & Smith, 1984; for other examples of how students' incorrect theories interfere with instruction, see Driver, 1983).

Although science educators take such research as an indication that students should not simply be encouraged to see the similarity between school tasks and everyday understandings, some are still reluctant to give up the idea that student learning must be a smooth progression. Driver (1983), for example, advocates teaching incorrect theories closer (than scientifically accepted theories) to ordinary understanding as a starting point, claiming that the more complicated correct theories are likely to confuse students. Eaton, Anderson, and Smith (1984) argue that students need to understand why a scientific theory is better than an everyday theory before they change from one to the other; they argue that both scientific and everyday theories must be clearly understood before students can change their beliefs.

This gradual progression from everyday to disciplinary understandings is the most acceptable version of instruction that continually makes links to what students already know. It rests on the demonstrated value of associative

learning for increasing comprehension and recall, yet is directed toward justifiable beliefs, not just any beliefs that make sense to the students. Such instruction has great value for promoting assimilative learning, while avoiding unsettling students. But educators must face the fact that consequential learning is often accompanied by periods of confusion and uncertainty (Petrie, 1974; Scheffler, 1977). Choosing the comfortable option of hanging on to old ways of seeing may bring mislearning and deny the value of conceptual change.

Preserving Social Differences?

Links to the familiar can impede education for all children. But this conservative practice raises additional problems for children whose home lives do not fit closely with what is learned in public schools. Showing similarities between events in ordinary life and school learning will provide different instruction for students from different backgrounds. These differences may be structurally supported, but they will not be educationally justified.

For learning that exceeds socialization, adaptation, and simple internalization, the contingency of students' starting points must be overcome, rather than affirmed in instruction. Reflecting on self, experience, and one's environment requires breaking with the influence of everyday life (Floden, Buchmann, and Schwille, 1984).

Dewey, as a champion of tight ties between home and school, also recognized that students enter school with different kinds of experiences. He granted that

> experience does not occur in a vacuum. There are sources outside an individual which give rise to experience. It is constantly fed from these springs. No one would question that a child in a slum tenement has a different experience from that of a child in a cultured home; that the

> countrylad has a different kind of experience from the cityboy, or a boy on the seashore one different from the lad who is brought up on inland prairies. (Dewey, 1938/1963, p. 40)

Dewey, however, saw

> no paradox in the fact that the principle of continuity of experience may operate so as to leave a person arrested on a low plane of development, in a way which limits later capacity for growth. (pp. 37-8)

Schooling that starts where children are leads to unequal outcomes, and these are determined by social class, group norms, contingent advantages and constraints--being well to do or poor, for example.

As Willis (1977) has shown, disaffected working class boys end up accepting--almost embracing--what they see as their place in society. The "lads" enact their skeptic stance toward the social order as a rejection of school in particular and intellectual activity in general. As presented in the British equivalent of vocational education, the organization of work in industry appears as timeless as the class distinction between manual and mental labor. The absolutism of this perception is the absolutism of common sense, which claims the everyday world as its authority.

> For "the lads" this hegemony of common sense surrounds them all the time . . . Perhaps most important . . . it supplies an overpowering feeling that the way of the world is the way of work. (Willis, 1977, p. 162)

Adhering to the principle of starting with the familiar endangers equal educational opportunity. This danger becomes more grave through the differential application of the principle of meaningfulness. As a guide to educational method and content, this principle is seen as most appropriate for students likely to have short academic careers (see, e.g., Driver, 1983). Teachers assess children's educational needs on the basis of their social backgrounds and anticipated futures, and these assessments radically diminish educational opportunities (see also Cusick, 1983). In this fashion,

instruction comes to be biased against education for just those students who are least likely to gain education later in their lives.

Showing Practical Value to Motivate

Advocates of meaningfulness might now argue that the point is not to make students think that there is nothing new to learn, but to get them to see that schooling is useful, thus motivating them to learn.

This, however, is a retreat to even weaker ground. First, focusing on practical value in education has been repeatedly and appropriately attacked by philosophers of education and social scientists. Philosophers argue that there are many things worth learning that have no immediately evident practical value (e.g., scientific theories), perhaps no practical value at all (e.g., poetry). Choosing instructional content on the basis of what seems useful restricts students to the life of their communities. A recent review of the literature on vocational education (Woods & Haney, 1981), furthermore, concludes that although vocational education (which typically ties content into a local work context) seems successful in keeping students in school, it is unclear whether it benefits them. The jobs they get do not seem significantly better than the jobs of dropouts, and what students learn does not facilitate pursuit of higher education.

Second, people believing that seeing the usefulness of things is necessary to motivate students will be disappointed by recent assessments of relevant empirical literature. Brophy (1983) has pointed out that most research on motivation has considered free-choice situations, while schools are inescapable institutions with tasks that are seldom voluntary. He argues that making learning meaningful (in the sense of showing its practical value) tends to develop motivation merely to complete school tasks; it is necessary

to stress the inherent value of the task in order to develop motivation to learn it.

Brophy also points out that available research supports the idea that the disposition to find a task inherently interesting is a characteristic of the person, not just of the task or context. Although certain tasks are generally seen as uninteresting, some people can find most any task interesting. Moreover, being in a situation (like school) where there is little choice about what to do will not make people find fewer tasks interesting (Csikszentmihalyi, 1975). All this suggests that developing motivation to learn does not depend on showing practical value. On the contrary, developing motivation to learn may be hindered by emphasizing meaningfulness in this interpretation.

Conclusion

One ought to revolt against meaningless schooling: Education should help students acquire systematic knowledge that is worthwhile. But this educational goal is not promoted by favoring content of immediate practical value, nor is it always served by modes of instruction that gradually lead students from common sense to new and more valid understandings. Education only sometimes means reducing the unknown to the familiar; at other times, it means upsetting everyday conceptions, such as when students are taught that plants do not draw food from the soil, they make their own food (Smith & Anderson, 1984).

The trouble with meaningfulness is not only that the concept seems irrepressible and murky and that arguments advanced on behalf of meaningful instruction are shaky and confused, but that current versions of meaningfulness interfere with the potential of schools to deliver education

and equal opportunity. The pursuit of meaningfulness aggravates what seems to be the trouble with education.

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